




**AFFIDAVIT OF FRANK FADO**

STATE OF FLORIDA           §  
                                     §  
COUNTY OF PALM BEACH   §

Before me appeared FRANK FADO, duly sworn, deposes and states:

1. I am over the age of 18 years, a citizen of The United States currently residing in the United States.
2. I am employed by International Business Machines Corporation (IBM) as a software engineer of Boca Raton, Florida. I make this affidavit in support of U.S. Patent Application Serial No. 09/399,873 entitled PROCESS FOR IDENTIFYING EXCESS NOISE IN A COMPUTER SYSTEM.
3. IBM has invested substantial time and effort into the research, development, and marketing of their products and in an effort to protect its rights in all new inventions, IBM requires all employees to prepare and submit IBM Confidential Invention Disclosure Forms upon conception by the inventor(s).
4. As a named inventor for this invention, I submitted the attached IBM Confidential Invention Disclosure numbered BOC8-1998-0100, together with my co-inventors, Peter J. Guasti, Amado Nassiff, and Ronald E. VanBuskirk, which was electronically created on October 30, 1998, for review and consideration for the preparation and filing of a patent application.

Further Affiant sayeth naught.

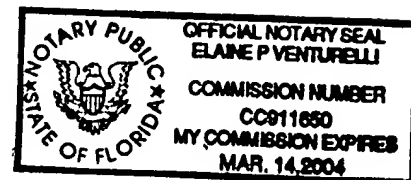
  
FRANK FADO


COPY OF PAPERS  
ORIGINALLY FILED

Sworn to and subscribed before me this 24 day of JUNE, 2002,  
by FRANK FADO.

  
Notary Public  
State of Florida at Large

X Personally Known  
\_\_\_\_ Produced identification  
\_\_\_\_\_



	<b>Disclosure BOC8-1998-0100</b>
	Created By: Ron Van Buskirk    Created On: 10/30/98 04:34:18 PM
	Last Modified By: Joanne Ferguson    Last Modified On: 11/03/98 09:31:25 AM
	*** IBM Confidential ***

Required fields are marked with the asterisk (\*) and must be filled in to complete the form .

### Summary

Status	Under Evaluation
Processing Location	BOC
Functional Area	Speech Development & Customization (O. Osborne)
Attorney/Patent Professional	Richard Tomlin/Boca Raton/IBM
IDT Team	Kerry Ortega/Boca Raton/IBM
Submitted Date	10/30/98 04:55:29 PM
Owning Division	CHQ
PVT Score	To calculate a PVT score, use the 'Calculate PVT' button.

### Inventors with Lotus Notes ID's

Inventors: Frank Fado/West Palm Beach/IBM, Peter Guasti/West Palm Beach/IBM, Amado Nassiff/West Palm Beach/IBM, Ron Van Buskirk/West Palm Beach/IBM

Inventor Name > denotes primary contact	Inventor Serial	Div/Dept	Manager Serial	Manager Name
Fado, Frank	331070	9T/A26A	375209	Nassiff, Amado
> Guasti, P.J. (Peter)	326384	9T/A26A	375209	Nassiff, Amado
Nassiff, Amado	375209	9T/9EGA	037340	Villar, Maria C.
VanBuskirk, R.E. (Ron)	689867	9T/A26A	375209	Nassiff, Amado

### Inventors without Lotus Notes ID's

#### IDT Selection

##### Main Idea

##### \*Title of disclosure (in English)

Process for determining if excess noise is present in a computer system

##### \*Idea of disclosure

1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.

This invention identifies audio noise in a computer system.

Excess noise can adversely affect applications that require clean audio signals to properly function. This noise can be categorized into two types: (1) External (background) noise and (2) Internal (system) noise. Although both types of noise can have detrimental effects, the presence of external noise is easily recognizable in that they are sounds that a user can actually hear in their environment. Internal noise is not so recognizable and in most instances goes undetected by the user.

It is this internal noise that we would like to identify and bring to the attention of the user. By being aware of the internal noise the user can remove it or avoid a system that contains it. This translates into more productive audio application usage for the user.

2. How does the invention solve the problem or achieve an advantage, (a description of "the invention", including figures inline as appropriate)?

The process involves taking two or more samples of audio data (see Figure 1).

1. Take one sample of the audio system at rest to get a baseline and to record any noise inherent in the audio system implementation.
2. Take another sample of audio system with the following system components being exercised:
  - microphone (internal/external) [speech sample]
  - speakers (internal/external) [play sound sample]
  - the hard disk [defragging/file transfers]
  - diskette, CD-ROM, ZIP, tape drive [file transfers]
  - communications adapter (i.e., token ring, ethernet, ISDN, etc.) [file transfers over a network]
  - modem (internal/external) [file transfers on the phone line]
  - keyboard/pointing device (especially on laptops) [human interaction like typing or moving the pointing device]
  - printer [print test page]
  - scanner [scan a page in]

Then make a comparison, based on Signal-to-Noise ratio (or similar metric), to determine if and to what extent these system components play in the creation of internal noise. This information can then be presented to the user, with possible solutions, in a readable format (see Figure 2).

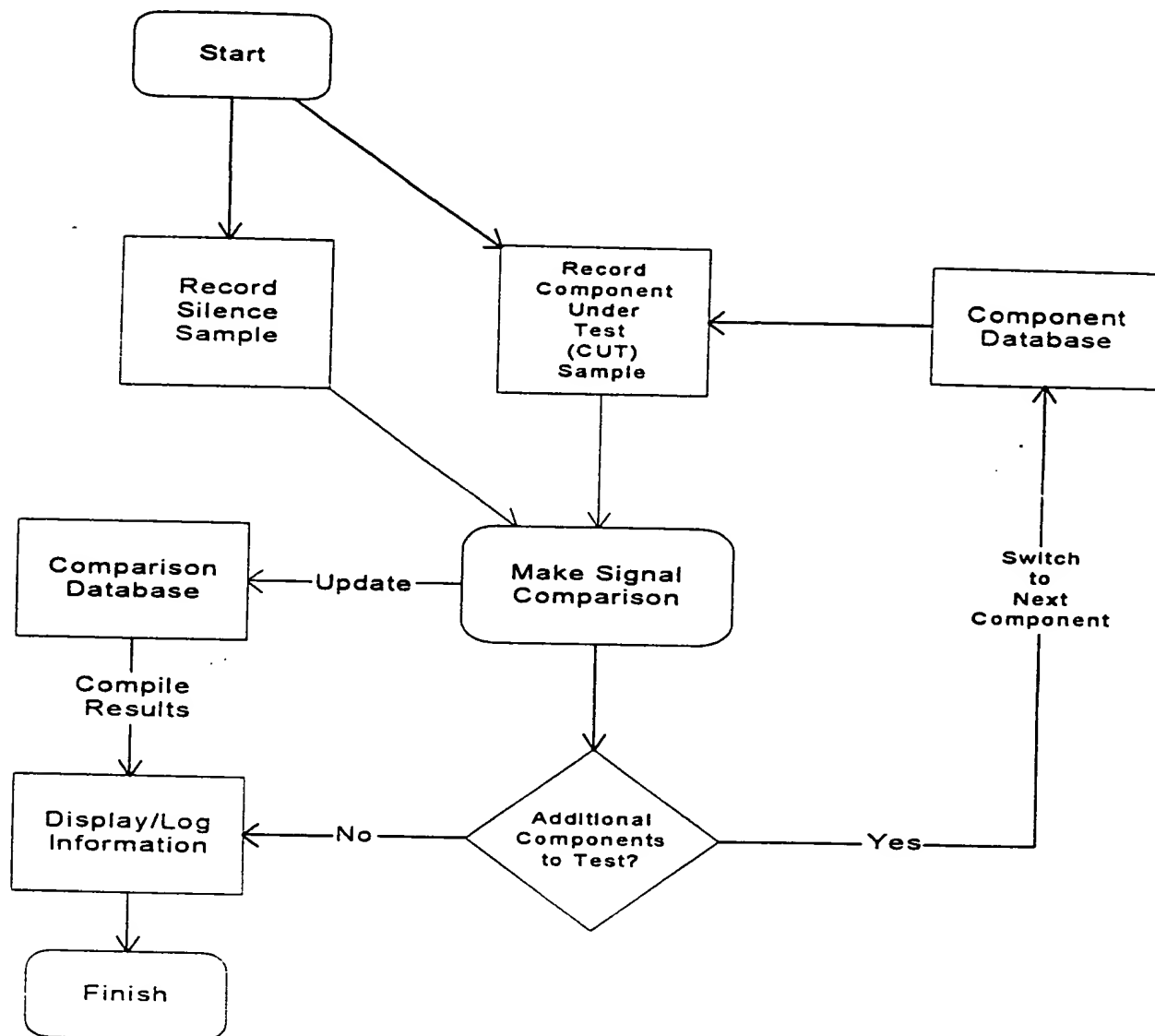


Figure 1 - Logic Flow Diagram

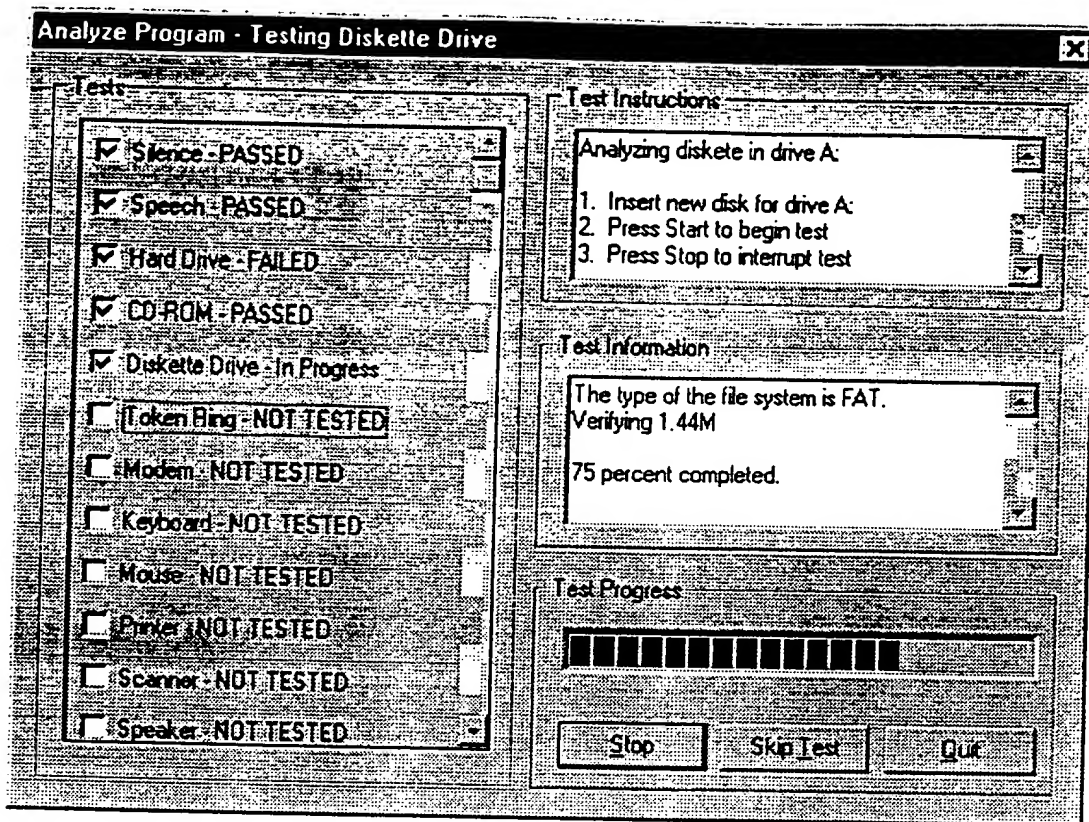


Figure 2 - Sample User Interface

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?

Dragon Systems has a similar noise detection instrument. However it is much cruder because it only appears to measure the gross signal to noise ratio. It doesn't perform any trouble-shooting as to which particular sub-system is the source of the noise. It also isn't as thorough. For example, if the hard drive wasn't running while the user was recording, they might never discover why noise was being introduced into their system intermittently.

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.

**\*Critical Questions ( Questions 1 - 7 must be answered)**

**Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the eval Post Disclosure Text & Drawings**

(Form Revised 12/17/97)

01P  
AUG 12 2002

**AFFIDAVIT OF PETER J. GUASTI**

STATE OF FLORIDA           §  
                                     §  
COUNTY OF PALM BEACH   §

Before me appeared, PETER J. GUASTI, duly sworn, deposes and states:

1. I am over the age of 18 years, a citizen of The United States currently residing in the United States.
2. I am employed by International Business Machines Corporation (IBM) as a software engineer of Boca Raton, Florida. I make this affidavit in support of U.S. Patent Application Serial No. 09/399,873 entitled PROCESS FOR IDENTIFYING EXCESS NOISE IN A COMPUTER SYSTEM.
3. IBM has invested substantial time and effort into the research, development, and marketing of their products and in an effort to protect its rights in all new inventions, IBM requires all employees to prepare and submit IBM Confidential Invention Disclosure Forms upon conception by the inventor(s).
4. As a named inventor for this invention, I submitted the attached IBM Confidential Invention Disclosure numbered BOC8-1998-0100, together with my co-inventors, Frank Fado, Amado Nassiff, and Ronald E. VanBuskirk, which was electronically created on October 30, 1998, for review and consideration for the preparation and filing of a patent application.

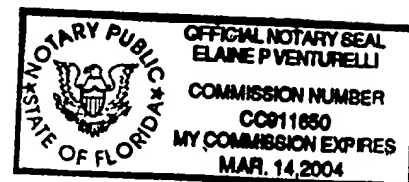
Further Affiant sayeth naught.

Peter J. Guasti  
PETER J. GUASTI


Sworn to and subscribed before me this 25 day of JUNE, 2002,  
by PETER J. GUASTI.

Elaine P. Venturelli  
Notary Public  
State of Florida at Large

       Personally Known  
X Produced identification  
IDM BADGE





	<b>Disclosure BOC8-1998-0100</b>
	Created By: Ron Van Buskirk    Created On: 10/30/98 04:34:18 PM
	Last Modified By: Joanne Ferguson    Last Modified On: 11/03/98 09:31:25 AM
	*** IBM Confidential ***

Required fields are marked with the asterisk (\*) and must be filled in to complete the form.

### Summary

Status	Under Evaluation
Processing Location	BOC
Functional Area	Speech Development & Customization (O. Osborne)
Attorney/Patent Professional	Richard Tomlin/Boca Raton/IBM
IDT Team	Kerry Ortega/Boca Raton/IBM
Submitted Date	10/30/98 04:55:29 PM
Owning Division	CHQ
PVT Score	To calculate a PVT score, use the 'Calculate PVT' button.

### Inventors with Lotus Notes ID's

Inventors: Frank Fado/West Palm Beach/IBM, Peter Guasti/West Palm Beach/IBM, Amado Nassiff/West Palm Beach/IBM, Ron Van Buskirk/West Palm Beach/IBM

Inventor Name > denotes primary contact	Inventor Serial	Div/Dept	Manager Serial	Manager Name
Fado, Frank	331070	9T/A26A	375209	Nassiff, Amado
> Guasti, P.J. (Peter)	326384	9T/A26A	375209	Nassiff, Amado
Nassiff, Amado	375209	9T/9EGA	037340	Villar, Maria C.
VanBuskirk, R.E. (Ron)	689867	9T/A26A	375209	Nassiff, Amado

### Inventors without Lotus Notes ID's

#### IDT Selection

#### Main Idea

#### \*Title of disclosure (in English)

Process for determining if excess noise is present in a computer system

#### \*Idea of disclosure

1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.

This invention identifies audio noise in a computer system.

Excess noise can adversely affect applications that require clean audio signals to properly function. This noise can be categorized into two types: (1) External (background) noise and (2) Internal (system) noise. Although both types of noise can have detrimental effects, the presence of external noise is easily recognizable in that they are sounds that a user can actually hear in their environment. Internal noise is not so recognizable and in most instances goes undetected by the user.

It is this internal noise that we would like to identify and bring to the attention of the user. By being aware of the internal noise the user can remove it or avoid a system that contains it. This translates into more productive audio application usage for the user.

2. How does the invention solve the problem or achieve an advantage, (a description of "the invention", including figures inline as appropriate)?

The process involves taking two or more samples of audio data (see Figure 1).

1. Take one sample of the audio system at rest to get a baseline and to record any noise inherent in the audio system implementation.
2. Take another sample of audio system with the following system components being exercised:
  - microphone (internal/external) [speech sample]
  - speakers (internal/external) [play sound sample]
  - the hard disk [defragging/file transfers]
  - diskette, CD-ROM, ZIP, tape drive [file transfers]
  - communications adapter (i.e., token ring, ethernet, ISDN, etc.) [file transfers over a network]
  - modem (internal/external) [file transfers on the phone line]
  - keyboard/pointing device (especially on laptops) [human interaction like typing or moving the pointing device]
  - printer [print test page]
  - scanner [scan a page in]

Then make a comparison, based on Signal-to-Noise ratio (or similar metric), to determine if and to what extent these system components play in the creation of internal noise. This information can then be presented to the user, with possible solutions, in a readable format (see Figure 2).

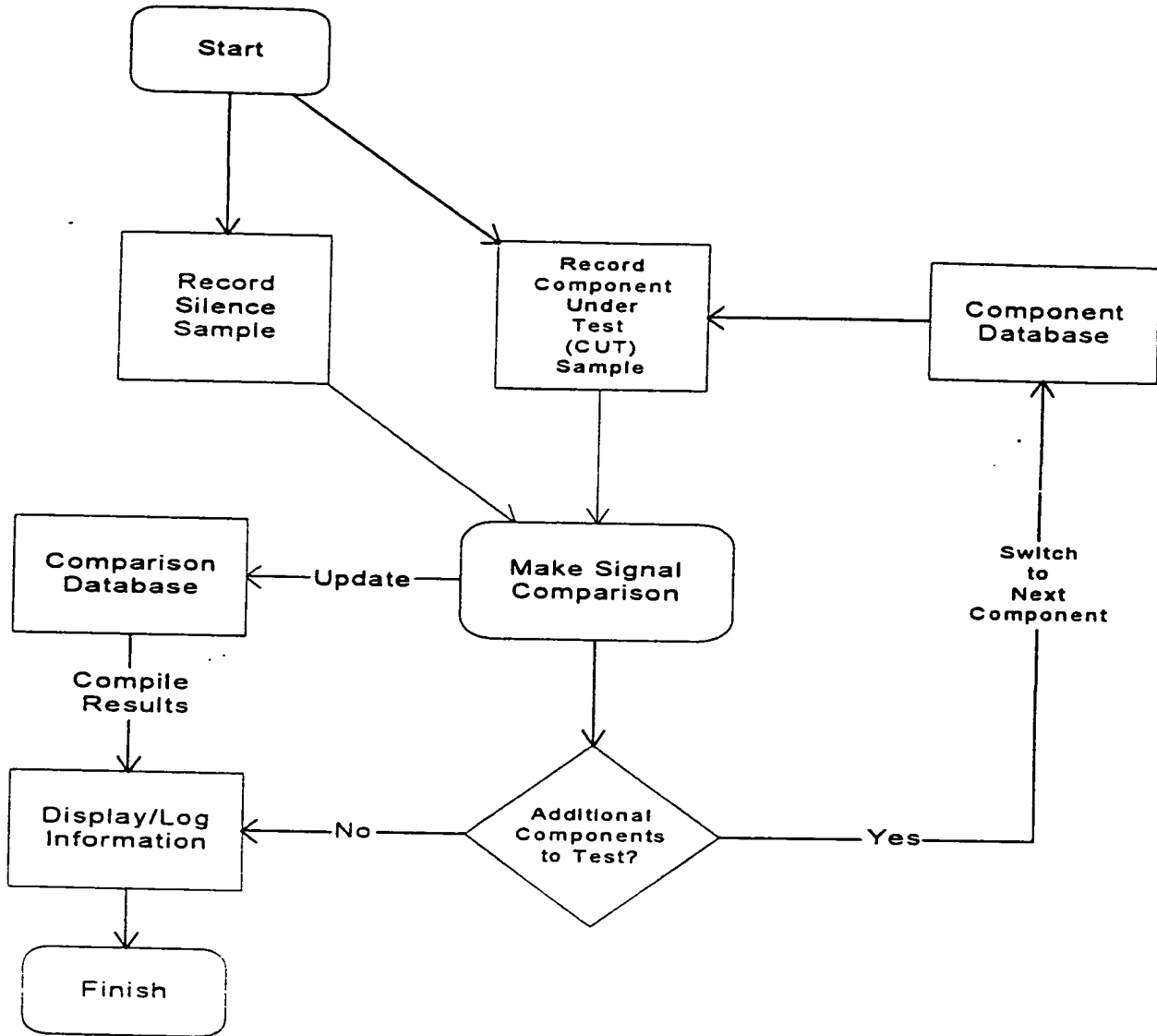


Figure 1 - Logic Flow Diagram

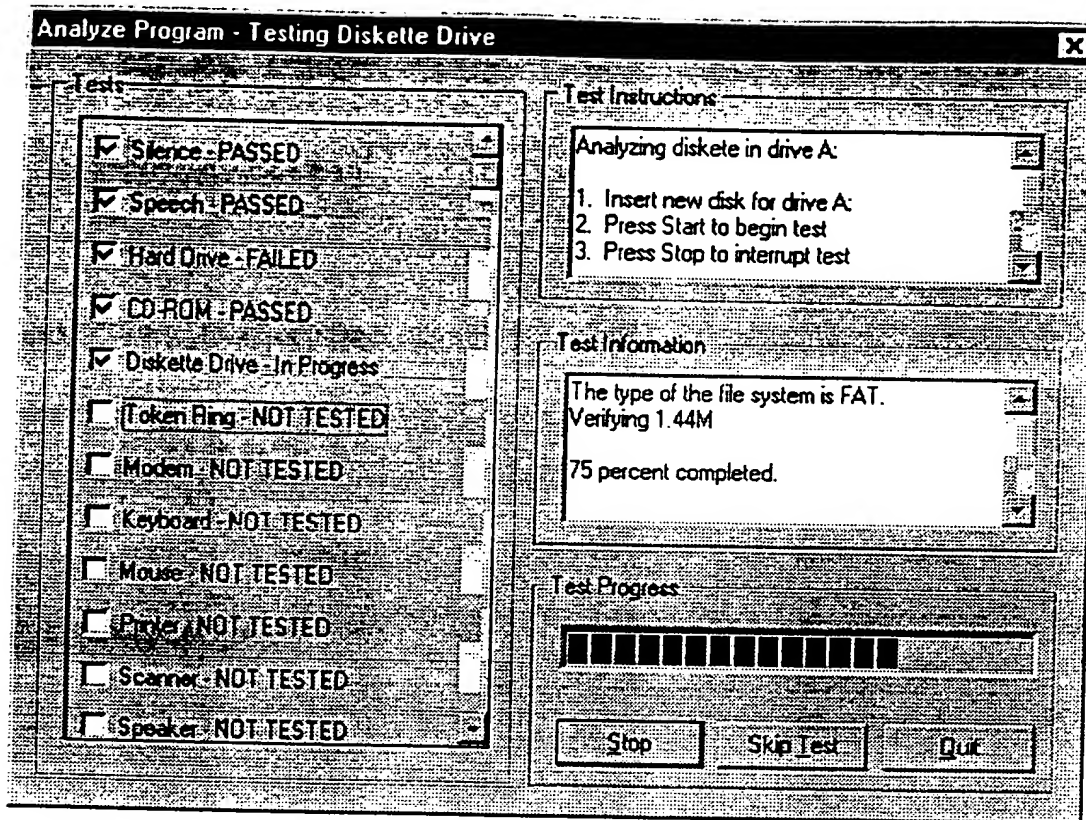


Figure 2 - Sample User Interface

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?

Dragon Systems has a similar noise detection instrument. However it is much cruder because it only appears to measure the gross signal to noise ratio. It doesn't perform any trouble-shooting as to which particular sub-system is the source of the noise. It also isn't as thorough. For example, if the hard drive wasn't running while the user was recording, they might never discover why noise was being introduced into their system intermittently.

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.

**\*Critical Questions ( Questions 1 - 7 must be answered)**

**Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the eval Post Disclosure Text & Drawings**

(Form Revised 12/17/97)



AFFIDAVIT OF AMADO NASSIFF

STATE OF FLORIDA       §  
                                  §  
COUNTY OF PALM BEACH   §

Before me appeared AMADO NASSIFF, duly sworn, deposes and states:

1. I am over the age of 18 years, a citizen of The United States currently residing in the United States.

2. I am employed by International Business Machines Corporation (IBM) as a software engineer of Boca Raton, Florida. I make this affidavit in support of U.S. Patent Application Serial No. 09/399,873 entitled PROCESS FOR IDENTIFYING EXCESS NOISE IN A COMPUTER SYSTEM.


3. IBM has invested substantial time and effort into the research, development, and marketing of their products and in an effort to protect its rights in all new inventions, IBM requires all employees to prepare and submit IBM Confidential Invention Disclosure Forms upon conception by the inventor(s).

4. As a named inventor for this invention, I submitted the attached IBM Confidential Invention Disclosure numbered BOC8-1998-0100, together with my co-inventors, Frank Fado, Peter J. Guasti, and Ronald E. VanBuskirk, which was electronically created on October 30, 1998, for review and consideration for the preparation and filing of a patent application.

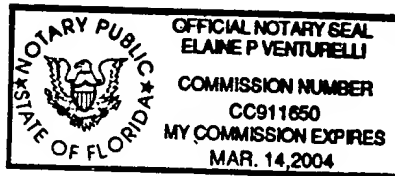
Further Affiant sayeth naught.


  
AMADO NASSIFF

Sworn to and subscribed before me this 1 day of July, 2002,  
by AMADO NASSIFF.

  
Notary Public  
State of Florida at Large

       Personally Known  
  X   Produced identification  
IBM BADGE



	<b>Disclosure BOC8-1998-0100</b>
	<b>Created By:</b> Ron Van Buskirk <b>Created On:</b> 10/30/98 04:34:18 PM
	<b>Last Modified By:</b> Joanne Ferguson <b>Last Modified On:</b> 11/03/98 09:31:25 AM
	*** IBM Confidential ***

Required fields are marked with the asterisk (\*) and must be filled in to complete the form .

### Summary

Status	Under Evaluation
Processing Location	BOC
Functional Area	Speech Development & Customization (O. Osborne)
Attorney/Patent Professional	Richard Tomlin/Boca Raton/IBM
IDT Team	Kerry Ortega/Boca Raton/IBM
Submitted Date	10/30/98 04:55:29 PM
Owning Division	CHQ
PVT Score	To calculate a PVT score, use the 'Calculate PVT' button.

### Inventors with Lotus Notes ID's

Inventors: Frank Fado/West Palm Beach/IBM, Peter Guasti/West Palm Beach/IBM, Amado Nassiff/West Palm Beach/IBM, Ron Van Buskirk/West Palm Beach/IBM

Inventor Name > denotes primary contact	Inventor Serial	Div/Dept	Manager Serial	Manager Name
Fado, Frank	331070	9T/A26A	375209	Nassiff, Amado
> Guasti, P.J. (Peter)	326384	9T/A26A	375209	Nassiff, Amado
Nassiff, Amado	375209	9T/9EGA	037340	Villar, Maria C.
VanBuskirk, R.E. (Ron)	689867	9T/A26A	375209	Nassiff, Amado

### Inventors without Lotus Notes ID's

#### IDT Selection

##### Main Idea

##### \*Title of disclosure (in English)

Process for determining if excess noise is present in a computer system

##### \*Idea of disclosure

1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.

This invention identifies audio noise in a computer system.

Excess noise can adversely affect applications that require clean audio signals to properly function. This noise can be categorized into two types: (1) External (background) noise and (2) Internal (system) noise. Although both types of noise can have detrimental effects, the presence of external noise is easily recognizable in that they are sounds that a user can actually hear in their environment. Internal noise is not so recognizable and in most instances goes undetected by the user.

It is this internal noise that we would like to identify and bring to the attention of the user. By being aware of the internal noise the user can remove it or avoid a system that contains it. This translates into more productive audio application usage for the user.

2. How does the invention solve the problem or achieve an advantage, (a description of "the invention", including figures inline as appropriate)?

The process involves taking two or more samples of audio data (see Figure 1).

1. Take one sample of the audio system at rest to get a baseline and to record any noise inherent in the audio system implementation.
2. Take another sample of audio system with the following system components being exercised:
  - microphone (internal/external) [speech sample]
  - speakers (internal/external) [play sound sample]
  - the hard disk [defragging/file transfers]
  - diskette, CD-ROM, ZIP, tape drive [file transfers]
  - communications adapter (i.e., token ring, ethernet, ISDN, etc.) [file transfers over a network]
  - modem (internal/external) [file transfers on the phone line]
  - keyboard/pointing device (especially on laptops) [human interaction like typing or moving the pointing device]
  - printer [print test page]
  - scanner [scan a page in]

Then make a comparison, based on Signal-to-Noise ratio (or similar metric), to determine if and to what extent these system components play in the creation of internal noise. This information can then be presented to the user, with possible solutions, in a readable format (see Figure 2).



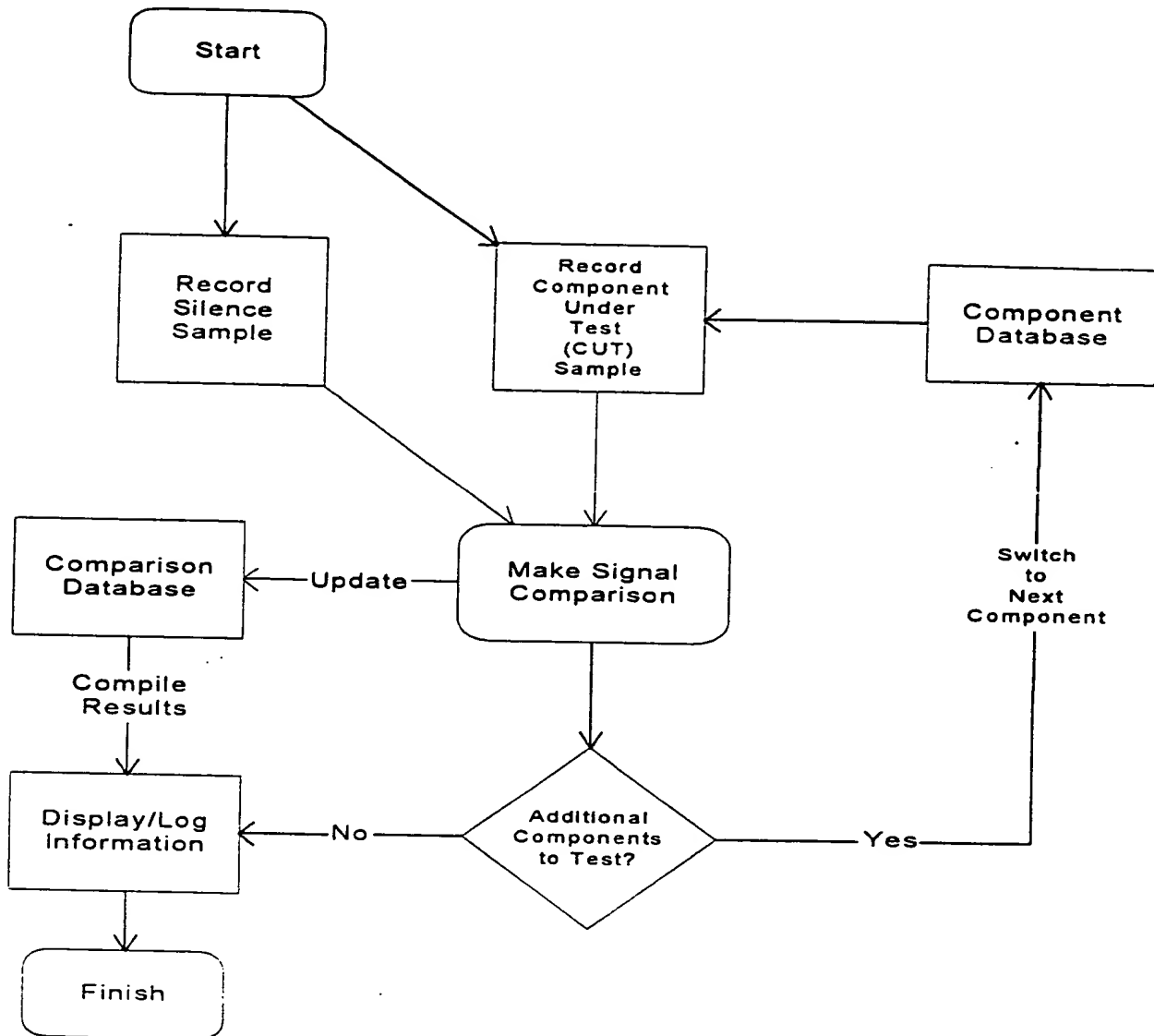


Figure 1 - Logic Flow Diagram

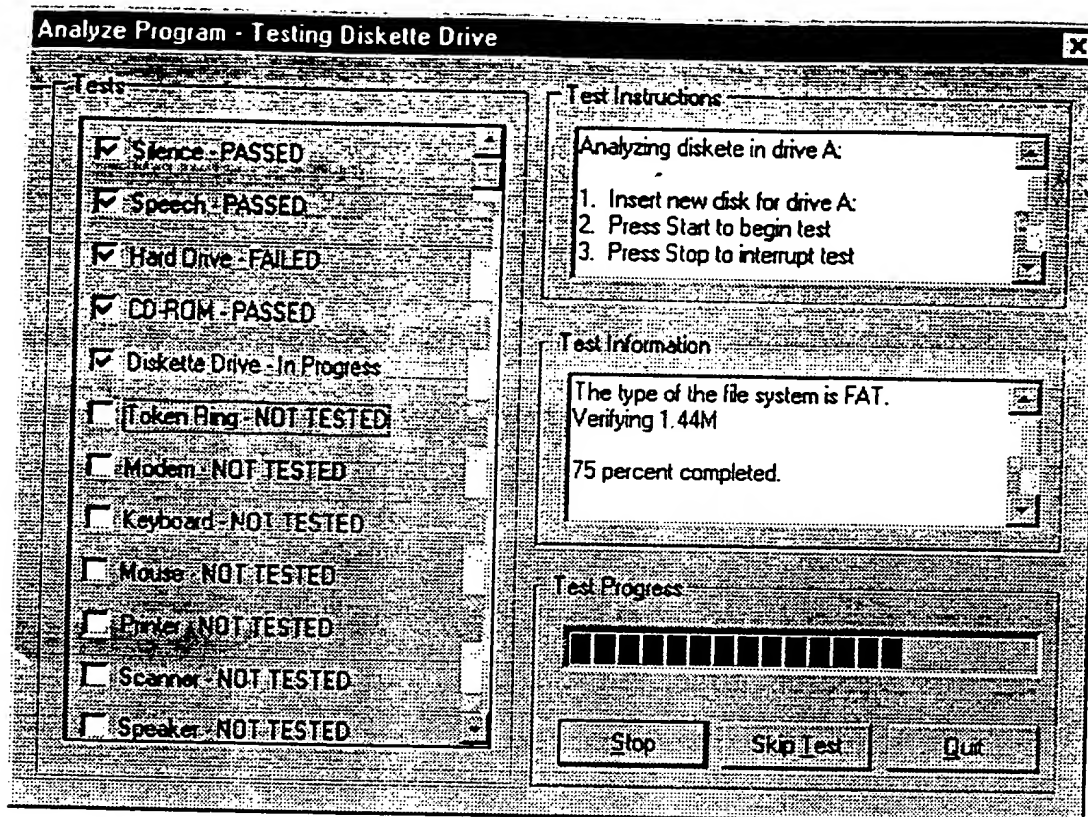


Figure 2 - Sample User Interface

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?

Dragon Systems has a similar noise detection instrument. However it is much cruder because it only appears to measure the gross signal to noise ratio. It doesn't perform any trouble-shooting as to which particular sub-system is the source of the noise. It also isn't as thorough. For example, if the hard drive wasn't running while the user was recording, they might never discover why noise was being introduced into their system intermittently.

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.

**\*Critical Questions ( Questions 1 - 7 must be answered)**

**Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the eval Post Disclosure Text & Drawings**

(Form Revised 12/17/97)

**AFFIDAVIT OF RONALD E. VANBUSKIRK**

STATE OF COLORADO

COUNTY OF BOULDER

Before me appeared RONALD E. VANBUSKIRK, duly sworn, deposes and states:

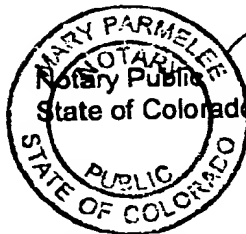
1. I am over the age of 18 years, a citizen of The United States currently residing in the United States.
2. I am employed by International Business Machines Corporation (IBM) as a software engineer of Boulder, Colorado. I make this affidavit in support of U.S. Patent Application Serial No. 09/399,873 entitled PROCESS FOR IDENTIFYING EXCESS NOISE IN A COMPUTER SYSTEM.
3. IBM has invested substantial time and effort into the research, development, and marketing of their products and in an effort to protect its rights in all new inventions, IBM requires all employees to prepare and submit IBM Confidential Invention Disclosure Forms upon conception by the inventor(s).
4. As a named inventor for this invention, I submitted the attached IBM Confidential Invention Disclosure numbered BOC8-1998-0100, together with my co-inventors, Frank Fado, Peter J. Guasti, and Amado Nassiff, which was electronically created on October 30, 1998, for review and consideration for the preparation and filing of a patent application.

Further Affiant sayeth naught.

*Ronald E. Van Buskirk*

RONALD E. VANBUSKIRK


Sworn to and subscribed before me this 7 day of Aug, 2002, by  
RONALD E. VANBUSKIRK.



*Mary Parmelee*

☒ Personally Known  
☐ Produced Identification

MY COMMISSION EXPIRES  
JUNE 12, 2003

	<b>Disclosure BOC8-1998-0100</b>
	Created By: Ron Van Buskirk    Created On: 10/30/98 04:34:18 PM
	Last Modified By: Joanne Ferguson    Last Modified On: 11/03/98 09:31:25 AM
	*** IBM Confidential ***

Required fields are marked with the asterisk (\*) and must be filled in to complete the form.

### Summary

Status	Under Evaluation
Processing Location	BOC
Functional Area	Speech Development & Customization (O. Osborne)
Attorney/Patent Professional	Richard Tomlin/Boca Raton/IBM
IDT Team	Kerry Ortega/Boca Raton/IBM
Submitted Date	10/30/98 04:55:29 PM
Owning Division	CHQ
PVT Score	To calculate a PVT score, use the 'Calculate PVT' button.

### Inventors with Lotus Notes ID's

Inventors: Frank Fado/West Palm Beach/IBM, Peter Guasti/West Palm Beach/IBM, Amado Nassiff/West Palm Beach/IBM, Ron Van Buskirk/West Palm Beach/IBM

Inventor Name > denotes primary contact	Inventor Serial	Div/Dept	Manager Serial	Manager Name
Fado, Frank	331070	9T/A26A	375209	Nassiff, Amado
> Guasti, P.J. (Peter)	326384	9T/A26A	375209	Nassiff, Amado
Nassiff, Amado	375209	9T/9EGA	037340	Villar, Maria C.
VanBuskirk, R.E. (Ron)	689867	9T/A26A	375209	Nassiff, Amado

### Inventors without Lotus Notes ID's

#### IDT Selection

#### Main Idea

#### \*Title of disclosure (in English)

Process for determining if excess noise is present in a computer system

#### \*Idea of disclosure

1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.

This invention identifies audio noise in a computer system.

Excess noise can adversely affect applications that require clean audio signals to properly function. This noise can be categorized into two types: (1) External (background) noise and (2) Internal (system) noise. Although both types of noise can have detrimental effects, the presence of external noise is easily recognizable in that they are sounds that a user can actually hear in their environment. Internal noise is not so recognizable and in most instances goes undetected by the user.

It is this internal noise that we would like to identify and bring to the attention of the user. By being aware of the internal noise the user can remove it or avoid a system that contains it. This translates into more productive audio application usage for the user.

2. How does the invention solve the problem or achieve an advantage, (a description of "the invention", including figures inline as appropriate)?

The process involves taking two or more samples of audio data (see Figure 1).

1. Take one sample of the audio system at rest to get a baseline and to record any noise inherent in the audio system implementation.
2. Take another sample of audio system with the following system components being exercised:
  - microphone (internal/external) [speech sample]
  - speakers (internal/external) [play sound sample]
  - the hard disk [defragging/file transfers]
  - diskette, CD-ROM, ZIP, tape drive [file transfers]
  - communications adapter (i.e., token ring, ethernet, ISDN, etc.) [file transfers over a network]
  - modem (internal/external) [file transfers on the phone line]
  - keyboard/pointing device (especially on laptops) [human interaction like typing or moving the pointing device]
  - printer [print test page]
  - scanner [scan a page in]

Then make a comparison, based on Signal-to-Noise ratio (or similar metric), to determine if and to what extent these system components play in the creation of internal noise. This information can then be presented to the user, with possible solutions, in a readable format (see Figure 2).

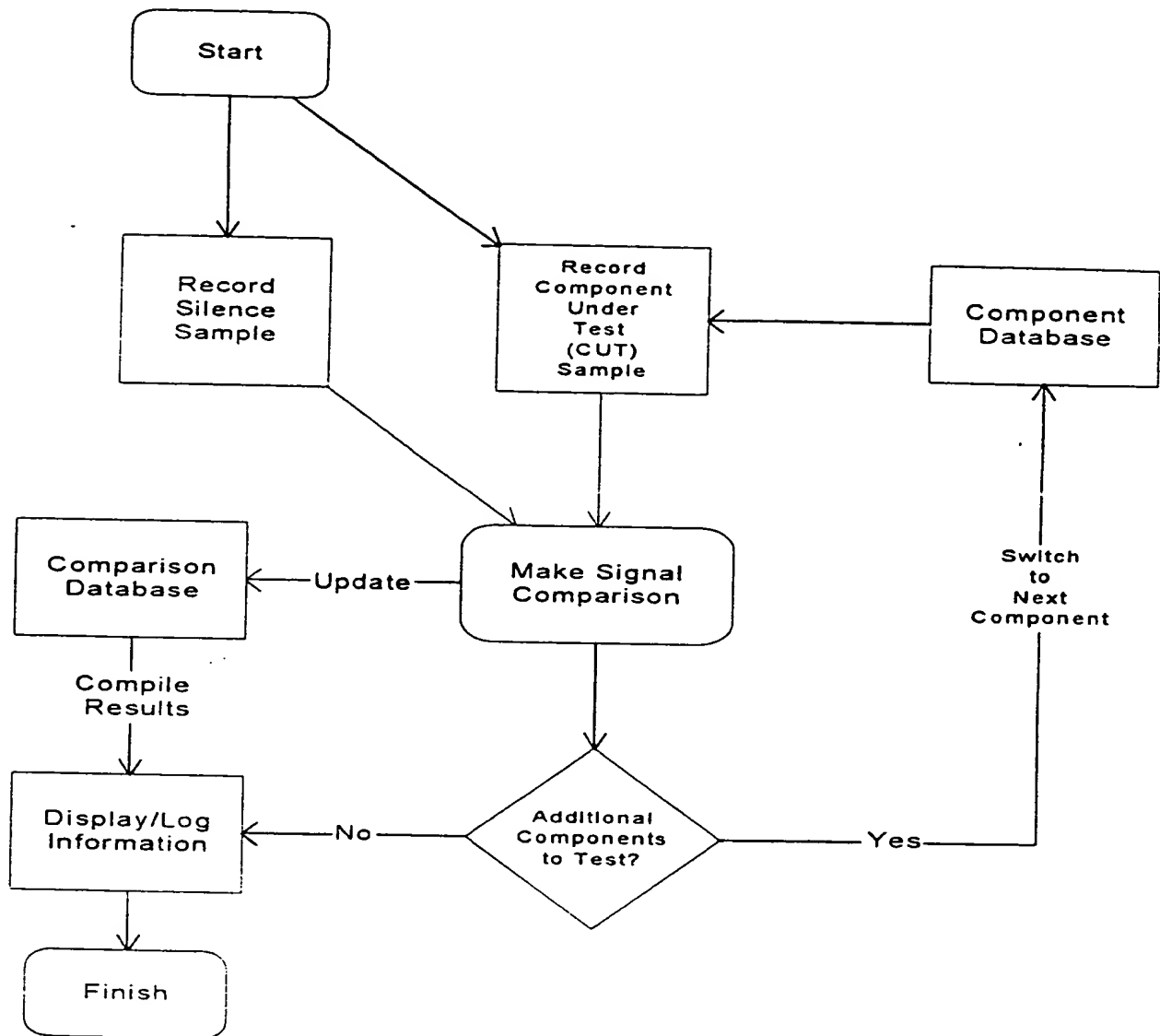


Figure 1 - Logic Flow Diagram

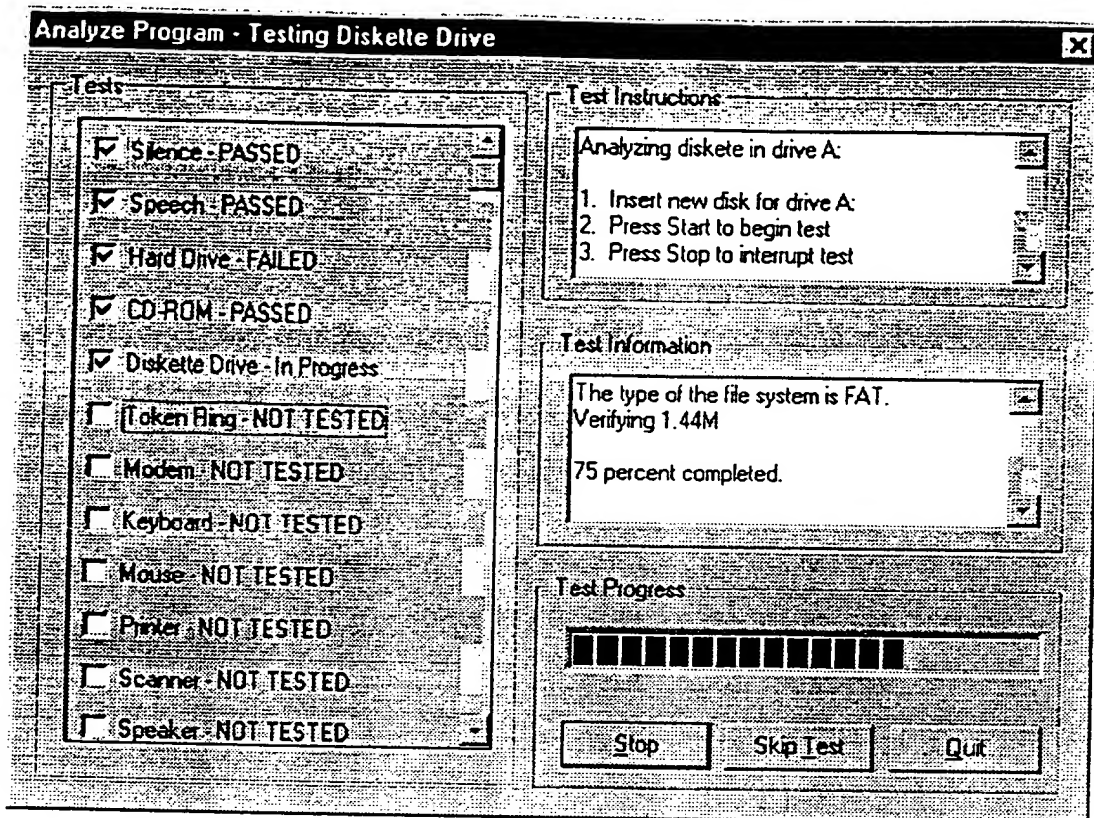


Figure 2 - Sample User Interface

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?

Dragon Systems has a similar noise detection instrument. However it is much cruder because it only appears to measure the gross signal to noise ratio. It doesn't perform any trouble-shooting as to which particular sub-system is the source of the noise. It also isn't as thorough. For example, if the hard drive wasn't running while the user was recording, they might never discover why noise was being introduced into their system intermittently.

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.

**\*Critical Questions ( Questions 1 - 7 must be answered)**

**Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the eval Post Disclosure Text & Drawings**

(Form Revised 12/17/97)